REMARKS/ARGUMENTS

Claim Status

Claims 1-20 are pending. Claims 1-7 and 20 stand withdrawn. Claims 10-12, 14, and 16-19 stand objected to, but allowable in rewritten appropriately. Applicant appreciates the examiner's indication of allowable subject matter.

Claims 8, 9, 13, and 15 stand rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 6,201,401 to Hellemans et al., hereinafter "Hellemans," in view of U.S. Patent No. 6,530,266 to Adderton et al., hereinafter "Adderton."

Applicant respectfully traverses the grounds for rejection and requests reconsideration and withdrawal of the rejections of and the objections to claims 8-19 in view of the following.

Rejections Under 35 U.S.C. § 103

Independent Claim 8

Independent claim 8 includes features that are neither disclosed nor suggested by the cited references, either taken alone or in combination, namely:

> 8. (Original) A method for determining impedance information of an interface in a sample, the method comprising the steps of:
> (a) applying an ac voltage to the sample, laterally across the interface, the ac voltage having a predetermined frequency;
> (b) disposing a cantilevered tip in a first position proximate to a surface of the sample;
> (c) measuring a first response of the cantilevered tip with the cantilevered tip in the first position;
> (d) placing the cantilevered tip in a second position proximate to the surface of the sample, the interface being between the first position and the second position;
> (e) measuring a second response of the cantilevered tip with the cantilevered tip in the second position; and
> (f) *determining* ***impedance information of the interface*** *based upon the measured first response and the measured second response.* (emphasis added)

Claim 8 is directed to determining impedance information of a *sample's interface*. To determine the impedance information, a cantilevered tip is disposed proximate the surface and responses are measured from the tip. Based on the responses, impedance information is determined.

Hellemans does not disclose or suggest determining impedance information of the interface (conceded by the examiner in the Office Action at page 3, third paragraph). As such, the examiner relies on Adderton as disclosing determining impedance information of the interface. Adderton, however, only determines the impedance of ***piezoelectric element*** *of cantilever* 20 (which is part of the equipment used to analyze *sample* 28). That is, Adderton determines the impedance of one part of the equipment used to analyze the sample (i.e., damping circuit 62), not the impedance of the ***sample interface*** itself (Adderton c. 8, ll. 65-66, c. 11, ll. 60-62). Therefore, assuming arguendo that there is some suggestion or motivation to combine Adderton with Hellemans, the resulting combination would not result in the claims as recited, as neither reference discloses or suggests determining impedance information of a sample's interface.

Accordingly, applicant submits that the cited references, either taken alone or in combination, do not disclose or suggest the features of independent claim 8. Additionally, inasmuch as dependent claims 9-19 (which have also been rejected or objected to over the cited references) are dependent on claim 8, these claims are patentable over the cited references, at least by virtue of their dependency. Accordingly, applicant respectfully requests reconsideration and withdrawal of the rejections of and the objects to claims 8-19 under 35 U.S.C. § 103.

Conclusion

For all the foregoing reasons, applicant respectfully submits that the present application is now in condition for allowance. Reconsideration of the Office Action and an early Notice of Allowance are respectfully requested. In the event that the examiner cannot allow the present application for any reason, the examiner is encouraged to contact the undersigned attorney, Raymond N. Scott Jr. at (215) 564-8951, to discuss resolution of any remaining issues.

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